

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-20 (Canceled).

Claim 21 (Currently Amended): A radio communication method for a radio communication system in which output signals are generated from a plurality of information signals and then transmitted to a system of a communication partner from a plurality of antennas, comprising:

receiving control information transmitted by the system of the communication partner;

determining, based on the received control information, a first weight corresponding to the plurality of antennas for one of the plurality of information signals with respect to the plurality of antennas modulated by a first modulation scheme and encoded by a first encoding method, and a second weight corresponding to the plurality of antennas for another one of the plurality of information signals with respect to the plurality of antennas modulated by a second modulation scheme and encoded by a second encoding method;

generating a first operation result by multiplying the one of the plurality of information signals by the first weight, and generating a second operation result by multiplying the another one of the plurality of information signals by the second weight; and

generating, based on the first operation result and the second operation result, a plurality of the output signals each corresponding to one of the plurality of antennas, and transmitting the plurality of the output signals to the system of the communication partner,

wherein the control information comprises a weight-related-information on the first and second weight and a transmission format information, on modulation scheme and

encoding method, corresponding to the weight-related-information, the modulation scheme and encoding method corresponding to the transmission format information being determined based on the signal quality calculated on the assumption that the output signals of the plurality of antennas are generated utilizing the weights corresponding to the weight-related-information and transmitted simultaneously.

Claim 22 (Currently Amended): The radio communication method according to Claim 21, wherein the transmission control information further comprises generating the plurality of the output signals by one of applying different modulation schemes between the first operation result and the second operation result and applying different encoding methods between the first operation result and the second operation result information to select the first and second weight from a greater number of weight candidates than the antennas.

Claim 23 (Currently Amended): A radio communication system in which output signals are generated from a plurality of information signals and then transmitted to a system of a communication partner from a plurality of antennas, comprising:

 a reception device for receiving control information transmitted by the system of the communication partner;
 a weight determining device for determining, based on the received control information, a first weight corresponding to the plurality of antennas for one of the plurality of information signals with respect to the plurality of antennas modulated by a first modulation scheme and encoded by a first encoding method, and a second weight corresponding to the plurality of antennas for another one of the plurality of information

signals with respect to the plurality of antennas modulated by a second modulation scheme and encoded by a second encoding method;

an operation device for generating a first operation result by multiplying the one of the plurality of information signals by the first weight, and generating a second operation result by multiplying the another one of the plurality of information signals by the second weight; and

a transmission device for generating, based on the first operation result and the second operation result, a plurality of the output signals each corresponding to one of the plurality of antennas, and transmitting the plurality of the output signals to the system of the communication partner,

wherein the control information comprises a weight-related-information on the first and second weight and a transmission format information, on modulation scheme and encoding method, corresponding to the weight-related-information, the modulation scheme and encoding method corresponding to the transmission format information being determined based on the signal quality calculated on the assumption that the output signals of the plurality of antennas are generated utilizing the weights corresponding to the weight-related-information and transmitted simultaneously.

Claim 24 (Currently Amended): The radio communication system according to Claim 23, wherein the ~~transmission device generates the plurality of the output signals by one of applying different modulation schemes between the first operation result and the second operation result and applying different encoding methods between the first operation result and the second operation result~~ control information further comprises information to select the first and second weight from a greater number of weight candidates than the antennas.